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Life Cycle Portfolio Management

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During 2002 our Roundtables and Conference have focused on managing the project portfolio. In our feature article, Bill Ausura, one of our Conference speakers, puts the topic into context, emphasizing application over the full product life cycle. Also described within is current Alliance-sponsored research.

Larry Gastwirt
Director

Introduction and Definitions

Portfolio Management has become one of the hot topics in industry over the last 3-5 years. Unfortunately, however, the brand of portfolio management being studied and espoused is not really true portfolio management. Today's emphasis comes primarily from an almost fanatical absorption with "new product development" and "product innovation" over the last few years, which has sprung up because of increasing competitive pressures in most industries. This has driven companies, academics and consultants to focus so exclusively on the new product area as to almost totally ignore other phases of product and portfolio life cycles. Clearly it is important to be as efficient, effective and innovative as possible in new product development, but the overemphasis on this area is driving wrong behaviors in disciplines which are critical to good, sound business management – and one of these key disciplines is portfolio management.

The process and practice which today is being dubbed portfolio management should more accurately be termed either "project portfolio management" or "project pipeline management." Its scope is usually confined to all the new projects being considered by a company or divisions of a company. However, it should be obvious that the revenue and profit drivers of an enterprise come from more sources than just new projects/products. In fact, although the current commonplace innovation metric is "percent of revenue derived from new products over X period (usually 2-3 years)," the averages of even the best companies seldom exceed 50% - usually more in the 25-35% range for very good companies. That means half or more of the products and services in many companies are not being managed using traditional portfolio management techniques. Many of those companies, in search of best practices which claim to increase productivity and financial returns, have taken an oblique left turn away from traditionally sound business management practices and procedures.

So, if new project decision making is NOT the core of portfolio management, what is? Well, one way to illustrate true portfolio management is to think for a moment of our product portfolio as if it were your personal investment portfolio. For example, if you owned a portfolio of 10 different investments in stocks, bonds, etc., what would likely be your first activity each day? Making new investment decisions? Probably not. It would probably be checking the daily newspaper or other financial information sources to see how your individual investments are faring. In this case your first and foremost action is NOT to decide which "new project" to undertake, i.e., which new stock, bond or fund investment to make, but instead to check out how each and every one of your EXISTING products is faring. If your current investments are doing well, you likely will have earnings which can be used to purchase additional shares or invest in other, different securities. But recognize that your first interest will not likely be new investments. It will rather be constantly monitoring to ensure you are continuing to increase earnings through your current "products." If those investments are not gaining, you may sell them and use the funds to invest in other things, but virtually all new investment decisions in ongoing enterprises depend on tight management of EXISTING investments.

Now examine the current thinking and writing

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on "portfolio management". It assumes an ongoing budget for new product development work, but does not generally discuss how best to ensure that adequate sources of budget money continue to be viable on an ongoing basis. Obviously, the primary source for new project funding is margins generated via sales of existing products. Does it not then stand to reason that new product portfolio decisions are primarily dependent on how well the portfolios of existing products are managed? The exception to this rule is brand new businesses, where initial project funding comes from other sources such as venture capitalists – but these types of new businesses are a small fraction of the total industry profile.

Here then is a definition for Portfolio Management which reflects the full product life cycle: "Portfolio management is the art of balancing all your product management skills and resources to achieve optimum strategic, financial and operational impact across all product lines in all life cycle phases." These life cycles start at strategic planning, go through individual fuzzy front-end stages, and continue onward into the post-introduction lives of products, including final discontinuations at market exit.

The Portfolio Management Life Cycle Quadrant Model

Let's look at a graphic of this ***full life cycle portfolio*** in the figure below. The portfolio of any unit or an entire company should be viewed in this four quadrant model, which depicts a normal progression of typical portfolio stages in counter-clockwise order, starting in the upper left corner.

LONG TERM PLANNING *(Potential STARS)*	**DISCONTINUING (OR MIGRATING) PRODUCTS** *(QUESTION MARKS, PROBLEM CHILDREN, DOGS)*
NEW PROJECT DECISIONS (PRODUCT DEVELOPMENT) *(Planned STARS)*	**MANAGING CURRENT PRODUCTS IN MARKET** *(Real STARS, CASH COWS, QUESTION MARKS, PROBLEM CHILDREN, DOGS)*

Upper left quadrant – Represents products in long term planning. These are products and projects which are in the "vision" state, 3-5 years out in time (more or less depending on the particular industry life cycle characteristics). They are being projected against the corporate strategy, goals and objectives, plus competitor and market research and customer needs information sources.

The focus for managing items in this quadrant is on matching long term business mission, objectives and strategies with product and technology roadmaps and plans. Output should include clear, but broad plans that define which product areas will be pursued, and indicate intended market, customer and competitive justification and positioning. The emphasis in this stage is more on product platforms than on individual product development projects.

Life Cycle Portfolio Management (Continued)

purpose of this team is to provide a forum for ongoing, periodic reviews of all quadrants of division or corporate portfolios, including making key decisions which will govern how those portfolios are planned, executed and managed. Above is a diagram of this type of team.

Note that this team has a similar structure to a cross-functional project or product team. The main difference is in the management level of team leader and members. They must have a scope of accountability and responsibility which will allow them collectively to make cross-product and cross-work-unit-boundary decisions, especially in regard to project and product funding. In addition, they should in best cases have administrative oversight responsibility for the cross-functional team members working on the product lines within the Review Team's portfolios. Regardless of administrative relationship, for the Portfolio Review Team to operate most effectively there must be regular interaction between its members and the members of the product teams it oversees.

The Portfolio Review Team may utilize a myriad of methods and tools in conducting its ongoing reviews. Most companies at least use some type of decision screening mechanism or template to ensure projects and products are reviewed in a consistent, objective manner against common criteria. Various types of scoring techniques and tools may be used as part of the screening and assessment process. Typically, the scoring should be on the basis of one or some combination of the following (not in any priority order): Strategic fit and leveragability, financial return – current and expected over life cycle, competitive price/feature comparison, capital and expense outlay, people resource requirements, technical merits, risk levels and success probabilities. Obviously, some of these are more relevant to new projects (left quadrants) than life cycle products (right quadrants), so it may be necessary to have slightly different scoring templates for the various quadrants. However, there should be some common areas, such as financial return, fit with strategy, etc., that will allow cross-quadrant comparisons if desired, depending on how the company and Review Team structure their portfolio review processes.

Observed Trend	Portfolio Management Impacts
1. Business downsizings/spin-offs	▪ Loss of experience, core business management competencies, and critical resource mass
2. Consolidations & acquisitions	▪ Strategy, process, culture confusion, and loss of knowledgeable personnel with job eliminations
3. New Project overindulgence; shift from business to technical	▪ Loss of market & customer assessment skills, and loss of life cycle and P&L management expertise
4. Globalization & virtual teams	▪ Communication & tracking problems, with misalignment on project and product plans
5. Emergence of web-based project management tools	▪ Web tool vendor sales personnel become the business model and process controllers; reinforces over-emphasis on new projects

Finally, for the team and reviews to be viable and effective there must be ready access to summary and detailed project and product information. The most efficient way to get this data is through some type of information system based on or driven from corporate billing and accounting systems. The least effective way is via manual reports from the individual project or product teams. However, some combination of these, providing both objective and subjective or contextual input, can be extremely useful.

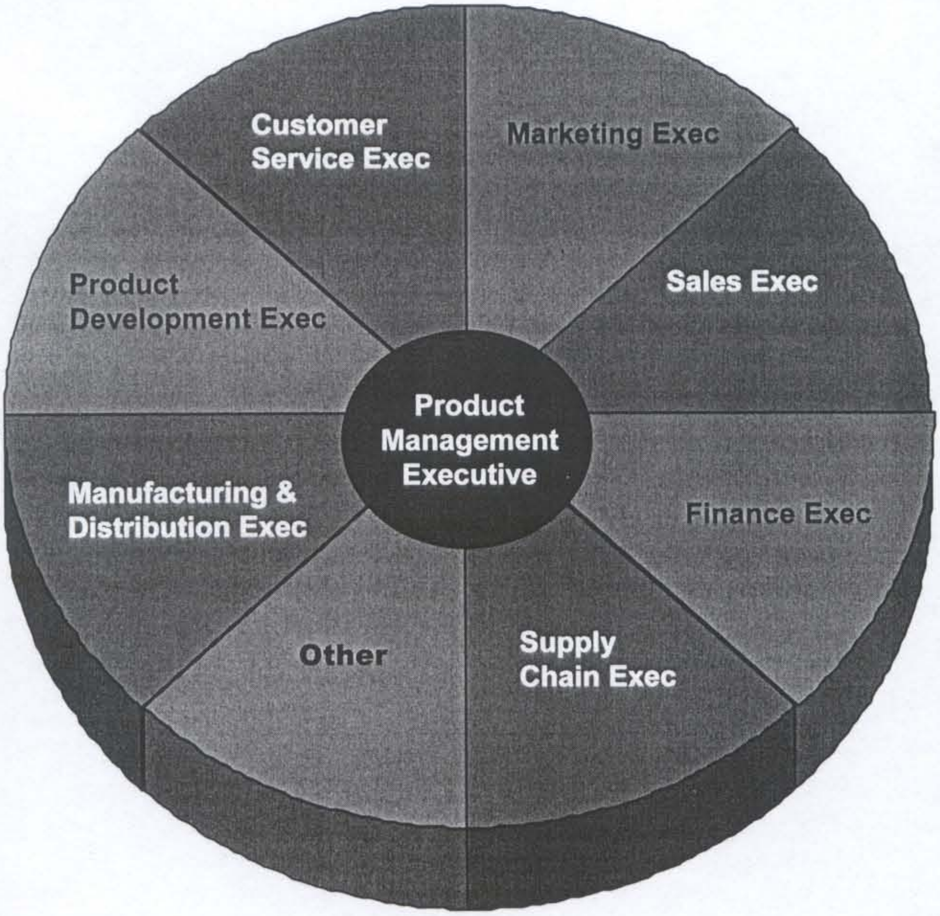
Barriers to Life Cycle Portfolio Management

In the past 10-15 years, it seems that a number of business trends may actually be creating barriers for companies desiring to institute or improve portfolio manage-

Life Cycle Portfolio Management (Continued)

management must be interwoven into multitudes of other business activities, processes and disciplines in order to really be effective. Some key items which must connect with and precede portfolio management include formulation of the company mission, goals/objectives and strategy, and establishment of solid work and organizational structures.

Unless the corporate and/or divisional mission, goals/objectives and strategies are clearly defined, communicated and bought-into across all functional organizations at all management levels, it is unlikely that people will understand, accept, or properly execute portfolio decisions, since these decisions often override lower tier, individual project and product directions.. All of the strategic level elements are critical to provide logical context for portfolio actions, so that teams and people at all management levels are synchronized to work together for the common good of the enterprise.



In addition, work structures must be of a type which will accommodate cross-functional analysis and decision making, to ensure that portfolio management plans and decisions take into account issues which impact multiple business functions. Without this cross-functional cooperative approach, execution of decisions impacting multiple business functions and product lines will be inefficient and cumbersome, if not impossible at times.

So.... a logical, hierarchical activity flow will enable a company to perform any type of portfolio management in a proper context if it also has an appropriately cooperative work structure environment. Companies which attempt to institute portfolio management techniques and processes without getting all of these elements well established and organized are not likely to do portfolio management well.

One final item to consider in the context for portfolio management is the nature of the corporate culture and its people. This "people element" is the one many companies fail to consider or understand fully, but it is often the one which presents the greatest implementation barrier when companies attempt to start doing portfolio management. The core issue is "paradigm shifting." People tend to see things from their own perspectives, especially in companies with long histories and entrenched cultures, functional structures and processes. To make major paradigm shifts in corporate culture and mainline business processes, some type of radical, external intervention is usually necessary, whether it be a new leader taking over and replacing key senior executives at the top of the company, or just bringing in a top-notch consultant experienced in doing portfolio management, in order to enlighten the population and drive the changes needed.

Techniques and Tools

If strategic, structural and cultural issues are dealt with at a macro level, this provides an environment within which the most important portfolio management people structure model can be set up: the cross-functional Portfolio Management Review Team. The

Life Cycle Portfolio Management (Continued)

Lower left quadrant – Covers New Product Development (NPD) projects in the current development pipeline. This is the portfolio management quadrant where most of the emphasis has been placed in recent years by academics and consultants, as well as most businesses which have more recently just begun implementing portfolio management disciplines.

Portfolio management decisions in this quadrant should be directed at prioritizing project concepts for near-term development. For the most part, these should have been positioned by the long term planning output of the previous quadrant, again consistent with corporate mission, objectives and strategies as well as current market, customer and competitive conditions. Execution of individual projects in this quadrant is most often done utilizing a form of phase-gate decision process which should continue to scrutinize individual projects for viability as they progress through this step-by-step process. Projects killed in any one of the phases provide funding for projects still under consideration but not yet started – or projects held back because they were of lower priority than projects already started through the phase-gate process. This quadrant has the greatest amount of best practice information and consulting resources available to support corporate improvement efforts, such as Cooper/Edgett/Kleinschmidt's <u>Portfolio Management *for* New Products</u> 1997 study.

Lower right quadrant – Represents all products already announced and introduced. These are products undergoing active life cycle management in best-in-class companies, in order to optimize revenues and margins. The individual life cycle phases of products in this quadrant are typically called *Growth* and *Maturity*.

As noted above, the object of portfolio management activities in this quadrant is to optimize the revenues and profits of all products, such that the maximum amount of funding for new product projects can be continuously made available to the project managers and developers of new products. Consumer products businesses, notably Procter and Gamble as early as the 1930's, have fine tuned techniques for managing product lines over their life cycles in order to extend, broaden, deepen, etc. their brands to achieve optimum payback. Procter and Gamble is said to have invented this type of product management, if not portfolio management as well. Unfortunately, over the last few years many other industries or individual companies seem to have departed from known, sound business practices in basic product life cycle management. And by losing expertise in life cycle product management, they have also lost expertise in managing life cycle portfolios as well, in any disciplined, standard manner.

Upper right quadrant – Products in this quadrant are in either the *Decline* or *Exit* phase of their life cycles. While they may still be revenue and margin producing until final exit from the marketplace, their returns are usually considerably lower at this stage than for products still in the previous quadrant.

If there has been a loss of expertise in industry in managing the Growth and Maturity phases of products and product lines, it is dwarfed by the lack of expertise and attention afforded to the Decline and Exit phases by people in many businesses today. All too often products are left to wither away, all the while draining valuable resources from various support organizations. Worse, customers are often stranded by lack of planning or execution in regard to graceful product migration and exit. Those customers often carry the bad experience into their next buying decisions, such that many companies never become aware they have lost sales of future new products because they have mismanaged the migration and exit of older products. Finally, product learnings from this portfolio quadrant should be a key input into future planning for new product lines of similar types, so that the cycle continues in a counter-clockwise, continuous manner. Without good communication and cross-quadrant product and portfolio management, the lessons from other quadrants are not carried forward into the future planning activities.

Conclusion - Note carefully in the above diagram that the items in the left two quadrants produce little if any revenue or profit (some small amounts may be produced shortly after the products are introduced and formally move into their life cycle management phase, but these amounts are negligible). The major revenues and profits come from the right two quadrants. It should be obvious that any lack of attention and effectiveness in these areas will have significant negative impact on the sustainability of the enterprise overall, and especially its future new product work. Therefore, not managing portfolios from a full, life cycle perspective can have extremely negative impacts in almost any business.

<u>Structural context – key portfolio management factors</u>

All too often the subject of portfolio management is approached as if it were a standalone business process unconnected to other activities or processes in the enterprise. Unlike many other processes, however, portfolio

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ment. Collectively, they may continue to make it difficult for many businesses to do portfolio management in a "best-in-class" manner. In my former corporate position, we benchmarked 36 major companies of a wide variety from 1995 through 2001 (IBM, Hewlett Packard, SONY, NCR, Allied Signal, Hercules Chemical and others). The trends listed in the preceding table were observed or mentioned as potentially impacting their abilities to do top-notch product and portfolio management:

Summary

Portfolio management has been studied, documented and discussed for decades. Some companies have done an excellent job of establishing and maintaining core competencies in this key business function. But today more than ever, companies are challenged to learn and apply the full discipline of life cycle portfolio management. As market and competitive pressures continue to increase – especially in times of economic uncertainty – the need for good portfolio management becomes even more pressing. However, these same market and competitive pressures often cause companies to miss the critical role of portfolio management as they cut corners in budgets and people, putting their emphasis and their hopes more and more on individual new projects instead of taking a more holistic approach to overall business management. One key factor for long term success is understanding that a major prerequisite for good project and product management is first of all an excellent, full life cycle portfolio management process which is tightly connected to the strategic directives of the business.

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